

# STAR

10 NO 621343

## ENGINEERING CHANGE NOTICE

Page 1 of 2

<b>2. ECN Category (mark one)</b>  Supplemental <input type="checkbox"/> Direct Revision <input checked="" type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>	<b>3. Originator's Name, Organization, MSIN, and Telephone No.</b> J. Jo, 8E480, R2-12, 373-9322	<b>3a. USQ Required?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>4. Date</b> 05-05-95	
	<b>5. Project Title/No./Work Order No.</b> TANK 241-B-104 TANK CHARACTERIZATION PLAN	<b>6. Bldg./Sys./Fac. No.</b> 241-B	<b>7. Approval Designator</b> N/A	
	<b>8. Document Numbers Changed by this ECN (includes sheet no. and rev.)</b> WHC-SD-WM-TP-349, REV. 0	<b>9. Related ECN No(s).</b> N/A	<b>10. Related PO No.</b> N/A	
<b>11a. Modification Work</b>  <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	<b>11b. Work Package No.</b> N/A	<b>11c. Modification Work Complete</b>  N/A  Cog. Engineer Signature & Date	<b>11d. Restored to Original Condition (Temp. or Standby ECN only)</b> N/A  Cog. Engineer Signature & Date	

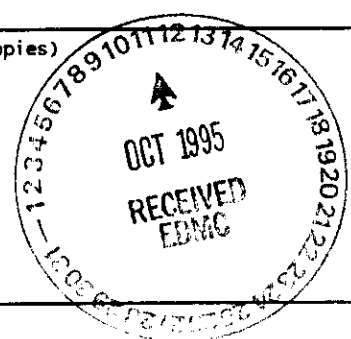
**12. Description of Change**  
 The risers were identified for the sampling event in the Tank Characterization Plan (riser 2 and riser 7).

**13a. Justification (mark one)**

Criteria Change <input checked="" type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input type="checkbox"/>	Facility Deactivation <input type="checkbox"/>
As-Found <input type="checkbox"/>	Facilitate Const <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

**13b. Justification Details**  
 Identification of risers directs sampling crew which risers to use for the sampling event.

**14. Distribution (include name, MSIN, and no. of copies)**  
 see attached Distribution Sheet

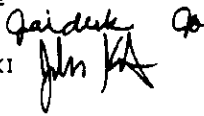
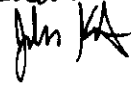


RELEASE STAMP

OFFICIAL RELEASE BY WHC

DATE MAY 04 1995

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ENGINEERING CHANGE NOTICE				Page 2 of 2	1. ECN (use no. from pg. 1) <b>621343</b>					
<b>15. Design Verification Required</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>16. Cost Impact</b> <table style="width: 100%; border: none;"> <tr> <th style="text-align: left;">ENGINEERING</th> <th style="text-align: left;">CONSTRUCTION</th> </tr> <tr> <td>Additional <input type="checkbox"/> \$</td> <td>Additional <input type="checkbox"/> \$</td> </tr> <tr> <td>Savings <input type="checkbox"/> \$</td> <td>Savings <input type="checkbox"/> \$</td> </tr> </table>			ENGINEERING	CONSTRUCTION	Additional <input type="checkbox"/> \$	Additional <input type="checkbox"/> \$	Savings <input type="checkbox"/> \$	Savings <input type="checkbox"/> \$	<b>17. Schedule Impact (days)</b> Improvement <input type="checkbox"/> Delay <input type="checkbox"/>
ENGINEERING	CONSTRUCTION									
Additional <input type="checkbox"/> \$	Additional <input type="checkbox"/> \$									
Savings <input type="checkbox"/> \$	Savings <input type="checkbox"/> \$									
<b>18. Change Impact Review:</b> Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.										
SDD/DD <input type="checkbox"/> Functional Design Criteria <input type="checkbox"/> Operating Specification <input type="checkbox"/> Criticality Specification <input type="checkbox"/> Conceptual Design Report <input type="checkbox"/> Equipment Spec. <input type="checkbox"/> Const. Spec. <input type="checkbox"/> Procurement Spec. <input type="checkbox"/> Vendor Information <input type="checkbox"/> OM Manual <input type="checkbox"/> FSAR/SAR <input type="checkbox"/> Safety Equipment List <input type="checkbox"/> Radiation Work Permit <input type="checkbox"/> Environmental Impact Statement <input type="checkbox"/> Environmental Report <input type="checkbox"/> Environmental Permit <input type="checkbox"/>	Seismic/Stress Analysis <input type="checkbox"/> Stress/Design Report <input type="checkbox"/> Interface Control Drawing <input type="checkbox"/> Calibration Procedure <input type="checkbox"/> Installation Procedure <input type="checkbox"/> Maintenance Procedure <input type="checkbox"/> Engineering Procedure <input type="checkbox"/> Operating Instruction <input type="checkbox"/> Operating Procedure <input type="checkbox"/> Operational Safety Requirement <input type="checkbox"/> IEFD Drawing <input type="checkbox"/> Cell Arrangement Drawing <input type="checkbox"/> Essential Material Specification <input type="checkbox"/> Fac. Proc. Samp. Schedule <input type="checkbox"/> Inspection Plan <input type="checkbox"/> Inventory Adjustment Request <input type="checkbox"/>	Tank Calibration Manual <input type="checkbox"/> Health Physics Procedure <input type="checkbox"/> Spares Multiple Unit Listing <input type="checkbox"/> Test Procedures/Specification <input type="checkbox"/> Component Index <input type="checkbox"/> ASME Coded Item <input type="checkbox"/> Human Factor Consideration <input type="checkbox"/> Computer Software <input type="checkbox"/> Electric Circuit Schedule <input type="checkbox"/> ICRS Procedure <input type="checkbox"/> Process Control Manual/Plan <input type="checkbox"/> Process Flow Chart <input type="checkbox"/> Purchase Requisition <input type="checkbox"/> Tickler File <input type="checkbox"/>								
<b>19. Other Affected Documents:</b> (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.										
Document Number/Revision		Document Number/Revision		Document Number/Revision						
N/A										
<b>20. Approvals</b>										
Signature		Date		Signature						
<u>OPERATIONS AND ENGINEERING</u>				<u>ARCHITECT-ENGINEER</u>						
Cog. Eng. J. Jo		<u>5-4-95</u>								
Cog. Mgr. J.G. KRISTOFZSKI		<u>5-4-95</u>								

SUPPORTING DOCUMENT		1. Total Pages <b>33</b>
2. Title Tank 241-B-104 Tank Characterization Plan	3. Number WHC-SD-WM-TP-349	4. Rev No. 0A
5. Key Words Tank 241-B-104, Tank Characterization Plan	6. Author Name: Jaiduk Jo Signature: <u>Jaiduk Jo</u> Organization/Charge Code 8E480/MDR21	
7. Abstract N/A		
<p style="text-align: center;">APPROVED FOR PUBLIC RELEASE</p>		
8. RELEASE STAMP <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">           OFFICIAL RELEASE            BY WHC            DATE <b>MAY 04 1995</b>  <u>Ata. 4</u> </div>		

<b>RECORD OF REVISION</b>		(1) Document Number WHC-SD-WM-TP-349		Page 1
(2) Title TANK 241-B-104 TANK CHARACTERIZATION PLAN				
<b>CHANGE CONTROL RECORD</b>				
(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release		
		(5) Cog. Engr.	(6) Cog. Mgr.	Date
0	(7) WHC-SD-WM-TP-349, REV 0, EDT 610415, April 12, 1995			
0A RS	Replaced pages A-1; ECN 621343	<i>Guido A</i>	<i>John Kunt</i>	5/4/95

## A1.0 TANK CHARACTERIZATION OBJECTIVES

This Sampling and Analysis Plan (SAP) will identify characterization objectives pertaining to sample collection, hot cell sample breakdown, and laboratory analytical evaluation and reporting requirements in accordance with the *Tank Safety Screening Data Quality Objective* (Babad and Redus 1994) and *Interim Data Quality Objectives for Waste Pretreatment and Vitrification* (Kupfer et al. 1994). These Data Quality Objectives (DQO's) are described in the Tank Characterization Plan (TCP) for tank 241-B-104 (B-104). The pretreatment DQO, at the request of the Pretreatment Program, will have limited use in this SAP (refer to Section A6.1). This SAP will also identify procedures and requirements for collecting and characterizing samples from tank B-104 by the core sampling method.

## A2.0 TANK STATUS AND SAMPLING INFORMATION

### A2.1 TANK STATUS

Tank B-104 is identified as a low-heat load non-Watch List tank, that is passively ventilated, and is categorized as sound with interim stabilization and intrusion prevention completed. It entered service in August 1946 and as of December 31, 1994, it stored 1,404 kL (371 kgal) of non-complexed waste, which corresponds to a depth of 330 cm (130 inches). The waste is comprised of 3.9 kL (1 kgal) of supernatant; 230 kL (61 kgal) of saltcake; 340 kL (90 kgal) of unknown waste; and 829 kL (219 kgal) of sludge which includes 151 kL (40 kgal) of pumpable liquid remaining (Brevick et al. 1994). However, this contradicts with the current Hanlon document which, states that there are 261 kL (69 kgal) of saltcake, 3.9 kL (1 kgal) supernatant, and 1,140 kL (301 kgal) of sludge which includes 154 kL (47 kgal) of pumpable liquid remaining (Hanlon 1995).

The current maximum temperature reading from July 1993 is 66° F. Tank B-104 contains a single thermocouple tree with 12 thermocouple probes in riser 5. Specific thermocouple elevations are not available. Tank B-104 is a low-heat load tank and has a semiannual temperature monitoring requirement for January and July (Brevick 1994).

### A2.2 SAMPLING INFORMATION

Tank B-104 is currently scheduled to be core sampled. Two core samples shall be collected from risers 2 and 7 of the tank. If a different riser is capable of meeting the intent of other requirements in the DQO, it may be used if the riser number is recorded and approved in writing in advance by the sampling cognizant engineer. Risers used may be recorded on a permanent data sheet, or recorded directly in a work package.

Based on current waste volume information, each of the core samples is expected to consist of seven segments. Segments 2 through 7 should be 48 cm (19 inches), and segment 1 should be 41 cm (16 inches). It should be noted that the sampling objective is to obtain a vertical profile of the waste; therefore, more or less segments may need to be taken depending on the accuracy of the current waste volume records. For detailed information regarding the sampling activities, refer to work package ES-95-166. This document contains operating procedures and the chain-of-custody records for this sampling event.

# DISTRIBUTION SHEET

To Distribution	From Characterization Plans and Reports	Page 1 of 2
		Date 5-5-95
Project Title/Work Order Tank 241-B-104 Tank Characterization Plan (WHC-SD-WM-TP-349), Revision 0A		EDT No.
		ECN No. 621343

Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
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